Chen, Xiaoyan

Nonnegative integer solutions of \( 1 + 2^x 5^y + 5^z 11^u = 2^v \cdot 11^w, xuvw > 0, y + z > 0. \) (Chinese. English summary) [Zbl 07366895]

Summary: This paper discuss a special case of the Diophantine equation \( 1 + X + Y = Z. \) With computer assistance, all the nonnegative integer solutions to the exponential Diophantine equation \( 1 + 2^x 5^y + 5^z 11^u = 2^v \cdot 11^w, xuvw > 0, y + z > 0 \) are determined by elementary method.

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11D61 Exponential Diophantine equations

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